



DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

OFFICE OF THE ASSISTANT SECRETARY

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MEMORANDUM FOR ALMAJCOM-FOA-DRU/FM

FROM: SAF/FM

1130 Air Force Pentagon
Washington, DC 20330-1130

SUBJECT: Interim Guidance for Business Case Analysis

In response to numerous requests, I am providing the attached interim guidance for performing business case analyses (BCAs). The use of BCAs in the Air Force has increased significantly this past year, yet no formal policy or guidance exists to ensure BCAs are done in a consistent, credible way. This interim guidance establishes a common baseline for how BCAs should be conducted in the Air Force financial management community. It is part of a larger initiative to develop Air Force-wide BCA policy.

A distinguishing feature of a BCA is its strategic orientation. Considering this, a well-done BCA ultimately transcends the financial management community. In essence, a BCA is a decision support document that contrasts alternatives to achieve stated organizational imperatives. It identifies alternatives and presents convincing *business, economic, and technical* arguments. Done correctly, a BCA will incorporate input from a variety of Air Force functionals. In this spirit, SAF/FM is developing Air Force-wide BCA policy and guidance with the active participation of our functional partners. You will hear more about these efforts in the coming months.

In the meantime, the release of this guidance is intended to assist your ongoing efforts to support the development of BCAs. I know there are a number of initiatives underway that either require a BCA or would benefit from the comprehensive and systematic approach of a BCA. I encourage you to use this guidance, whether you are preparing a BCA, or supporting the preparation of a BCA being produced by another functional. Furthermore, since this interim guidance is part of a larger effort to improve Air Force BCA capability through more formal guidance and policy, I ask for your constructive feedback. Please direct specific questions and comments to Mr. Dan Milano (SAF/FMCE) at DSN 227-5870 or (703) 697-5870.

MICHAEL MONTELONGO
Assistant Secretary of the Air Force
(Financial Management & Comptroller)

Attachment
Business Case Analysis Interim Guidance

Business Case Analysis Interim Guidance

Introduction

A business case analysis (BCA) is a decision support document that identifies alternatives and presents convincing business, economic, and technical arguments for selection and implementation to achieve stated organizational objectives/imperative. A BCA does not replace the judgment of a decision maker, but rather provides information to aid that judgment. The subject of a BCA may include any significant investment decision that leadership is contemplating. For example, a BCA may be used to substantiate the case to invest in a new weapons system; transform business operations; develop a web-based training curriculum; or retire an asset. Generally speaking, a BCA provides an analytic and uniform foundation upon which sound investment decisions can be made.

Although the terms “business case analysis” and “economic analysis” (EA) are sometimes used interchangeably, a BCA is considerably broader in scope. For example, an EA might examine whether it is more economical to buy or lease cargo aircraft. In contrast, a BCA would present a case as to why it makes sense to acquire aircraft at all, regardless of procurement method. In so doing, the BCA might examine other options to satisfy warfighting re-supply, e.g. pre-positioning or using land or sea-based assets in conjunction with the other Services. In that sense it is more encompassing. BCAs will focus on other aspects of a proposed investment decision such as: the plan for implementing the decision; identifying key stakeholders; and specifying performance indicators so that the impact of the decision can be tracked over time. A BCA should be viewed as a living document that helps substantiate investment decisions and is then used to track the success of those decisions over time. In practice, this breadth of scope is typically absent in a traditional economic analysis.

A Business Case Analysis can be an important tool to help an organization decide between multiple scenarios for future action. Thus the BCA presents a case for a choice of action. Similar analyses that are less robust than a BCA may manifest as a simple comparison of cash flows, but a good BCA is considerably more than that. It considers all the expected effects of an action, not just the financial ones, across the entire organization and also assesses the likelihood that those effects will occur as anticipated (i.e., risk issues). In view of these considerations, the recommendation supported by a BCA might not necessarily be the same one that evidences the highest direct financial benefits.

Business Case Analysis Content

1.1. This section provides the general framework for a business case analysis. The content described in each section should be included in each documented BCA. Note also that a BCA is scaleable depending on the decision being contemplated. When deciding upon the depth of a BCA, preparers of BCAs should keep in mind the decision-making audience; the timeframe for the decision; and the implications of the proposed decision. In some cases, a top level BCA of only 3-5 pages, prepared within a very short time (e.g., a week), is appropriate while in other cases a more extensive study is required. However, in all cases, the main body of the BCA should be succinct enough to allow decision makers to fully grasp the issues without becoming

overwhelmed by details. The BCA should be limited to a maximum size of 20-40 pages (excluding attachments) and should be commensurate in breadth and depth with the magnitude of resources involved. The ultimate objective is to provide an analysis that effectively supports a timely decision-making process.

1.2. The following sections should be included in each documented BCA:

Executive Summary

Assumptions

As-Is Description

To-Be Description (each alternative)

Cost-Benefit Analysis

Recommendation

Funding

Risk Assessment

Change Management Plan

Stake Holder Plan

Communications Plan

Training Plan

Implementation or Action Plan

Key Performance Measures and Outcomes

Appendix (used as a reference section for the supporting detail of the report)

(Note: Depending on the depth of the analysis, it may be appropriate to include appendices with detailed analytical support or background for many of these sections.)

1.2.1. **Executive Summary:** Provide a summary of the proposed investment decision. This section should focus on the key highlights that will then be expounded upon in the sections that follow the executive summary.

1.2.1.1 Summarize how the recommended course of action will bring value to the implementing organization or describe the particular problem that the investment decision will solve. Value should be defined in general terms of how the particular investment enables the organization to achieve strategic goals. Value should also be defined in net quantitative benefits (e.g., monetary savings, Return on Investment, payback period) that the proposed investment is anticipated to generate.

1.2.1.2. Summarize the plan required for implementing the particular investment decision. Identify the key stakeholders and their responsibilities. Describe the implementation schedule. Summarize budget requirements

1.2.1.3. Identify key assumptions upon which the analysis is based. Identify the analytical “trip points.” In other words, to what extent would key assumptions have to fail such that the business case no longer makes sense? How likely is this to happen? What measures will be taken to mitigate the risk of failure? This is also known as a sensitivity analysis

1.2.1.4. Describe the measures that will be used to track the progress of the decision once implemented.

1.2.2. **Assumptions:** Identify all key assumptions upon which the business case is based. The identification of these assumptions is critical in conducting risk or sensitivity analysis (reference 1.2.7). Each major assumption should be evaluated for its impact on the business case should it be significantly changed.

1.2.3. **“As-Is” Description.** Each investment decision will impact an existing process whether the decision involves a material solution such as procuring a new piece of equipment, or a non-material solution such as changing a mode of operations. Each decision should be evaluated in the context of the current “as-is” process that exists prior to the implementation of the proposed investment decision. A description of the “as-is” state of operations is thus critical insofar that it establishes the foundation against which the proposed investment decision can be evaluated. For example, suppose a proposed investment will generate the production of 6 widgets per day. It is not possible to evaluate the value of this investment unless the “as-is” production state (e.g., 4 widgets per day) is known. Requirements for the “as-is” description are amplified in the following subsections. “As-is” may also be thought of as status quo.

1.2.3.1. Describe the current process or state of operations that the particular investment decision will impact. Provide a narrative description of the key elements of the process (the inputs, processes and outputs), individuals or organizations performing the tasks, and the tools, systems, special education, or other factors critical to the process. Include the customers and the requirement(s) that will be impacted by the decision. Where feasible, include process maps to the level of detail necessary to support this explanation.

1.2.3.2. Describe the users of the process output and why they value that output. Why is this output important to the implementing organization, its stakeholders, its customers or the Air Force in general?

1.2.3.3. Identify the key performance indicators for the current process. Describe the cost, effectiveness and efficiency of the current process. Cost might be addressed in terms of FTEs, hours of work, or other specific cost elements (i.e., supplies, contracts, travel, etc.). Describe the effectiveness of the process in terms of accuracy, rework, or other measures. Discuss efficiency of the current process in terms of units per period of time, cost or other quantifiable measure. Use existing performance measures where possible, and describe the source and confidence level of any metrics developed over the course of the “AS-IS” process mapping/analysis.

1.2.3.4. Provide a brief root cause analysis: Describe the root cause(s) of the problem that the investment decision is focused on. Describe the elements of the process (i.e., training, organization, equipment, personnel, etc.) that are the underlying root cause(s) of the process weakness or problem.

1.2.4. **“To-be” Description:** For each alternative considered, describe the “to-be” state of operations that the proposed investment decision will help achieve. “To-be” may also be thought of as the future state, as compared to the current state or status quo.

1.2.4.1. Best practice summary: Summarize the best practices observed in other governmental or commercial organizations and why they are better than the current process. Include performance measures such as cost, effectiveness and efficiency to support your argument. Compare the current Air Force process to these best practices and describe the amount of change required to match or exceed a logically selected benchmark company or organization.

1.2.4.2. Describe the proposed solution. Discuss the problem the initiative will solve and why this is considered a good solution, related to the discussion in paragraph 1.2.3 above. Discuss whether this is a final solution, or if follow-on projects are necessary to achieve full benefits.

1.2.4.3. Describe the users of the transformed process output and why they value that output. Highlight the key functionalities, requirements and benefits to each user or customer. Why is this output better for the implementing entity, its stakeholders, its customers or the Air Force in general? Does the transformed process offer better decision support to commanders? Do all users derive the same benefits, or are there variations? Compare and contrast the transformed process with the “as-is” or status quo.

1.2.4.4. Explain the alternative solutions considered and why the submitted alternative is recommended over the competing alternatives. For each alternative, include: a) a brief description of the alternative; b) estimated costs; c) estimated benefits; d) alternative pros; e) alternative cons; f) relative merits when compared to the other alternatives; and g) rationale for decision

1.2.4.5. Describe how the new process will work. Include process maps at the level of detail necessary to support this explanation. Explain the differences in this process from the “as-is” process.

1.2.4.6. Describe the personnel resources required at each stage of implementation and sustainment, as well as any organizational changes that may be required. If support will be by contract, describe the type of support and estimate the cost and type of contract.

1.2.5 **Cost and Benefit Analysis:** For each alternative, calculate the expected financial return on the initiative including net present value (NPV), payback period, and return on investment (ROI) against which differing alternatives can be evaluated. Business case benefits and costs

should be developed for the life cycle (development, procurement, operation, support and disposal – AFMAN 65-506, Attachment 1) of the project. They should consider both tangible and intangible benefits and costs, as well as the strategic benefits to the Air Force from the investment decision. They should also address the consequences of doing nothing. For more detailed information on costs and benefits, see AFMAN 65-506, Attachment 9.

1.2.5.1. **Benefits:** Benefits may fall into one of several categories and may be monetary or non-monetary. If costs exceed monetary benefits, other benefits must be clearly defined and describe why the proposal is worth the additional cost to the Air Force. All benefits should be defined for the life of the solution. When benefits cannot be quantified, include a narrative description of benefits. The various types of benefits may include:

1.2.5.1.1. **Cost savings** should have an identifiable dollar value. That value may or may not translate into budget terms and should be so identified in the business case. All calculations, assumptions, and methodology used to identify the savings should be included. When addressing manpower, use AFMIA manpower standards as the baseline. Manpower and other cost data should be taken from AFI 65-503, Cost and Planning Factors, when possible. Savings fall into one of four categories:

1.2.5.1.1.1. **Budget savings** include those funds, manpower or other resources that could be removed from the organization (or retained as an incentive) with no adverse impact on mission. These savings relate directly to a budget line or a historical expenditure rate that will cost less because of the new process or activity.

1.2.5.1.1.2. **Cost avoidance savings** are benefits from actions that reduce or eliminate the need for an increase in manpower or cost and would be necessary if present management practices continued. These include such things as price increases, replacement of aging or obsolete equipment, overtime pay due to increased workload resulting from poorly functioning processes or equipment, etc.

1.2.5.1.1.3. **Opportunity cost** is cost of pursuing one alternative versus another. Opportunity cost can include, for example, the cost imposed by one activity on another by diverting an existing asset from the latter to the former. If use of an existing asset would result in a cash outlay for some other project or activity, a cost which the government would not have otherwise incurred, that value should be included in the analysis as the cost of using that asset. Another example, if the Air Force decides to build a hospital on vacant land that it owns, the opportunity cost is some other thing that might have been done with the land and construction funds instead. In building the hospital, the Air Force has forgone the opportunity to build an office building on that land, or a hanger, and so on.

1.2.5.1.1.4. **Productivity gains** will allow fuller use of personnel or capital assets to achieve higher value with the same or reduced resources. This form of savings may, for example, result in fewer overtime hours that may or may not translate into actual budget savings. In some cases, funds or manpower may be redirected to other activities or reduced work hours.

1.2.5.1.5. **Strategic organizational benefits** may be more difficult to quantify but are often very critical when developing a business case. These benefits may be very important to the organization because of law, policy, or strategic objectives that direct the result or because of other organizational goals. Some examples of strategic benefits include:

- A. Attainment of the President's Management Agenda
 - 1) Strategic management of human capital
 - 2) Competitive sourcing
 - 3) Improved financial performance
 - 4) Expanded electronic government
 - 5) Budget and performance integration
- B. Furtherance of the Air Force transformation goals
- C. An improvement in the effectiveness of operations resulting in higher customer satisfaction ratings
- D. A compression of average process cycle time by a factor of 4
- E. Work processes and workload that enable our people to accomplish routine organizational missions within a 40-50 hour workweek
- F. Empowerment of personnel and enrichment of job functions
- G. A 20% shift in business operations dollars and people to war fighting operations and new or modern war fighting systems
- H. Progress on organizational strategic objectives
- I. Development of strategic partnerships

NOTE: Tangible but non-financial benefits may have the least cost visibility, but may nonetheless be very important to the organization. They may include:

- a. Improved customer service
- b. Improved internal and external communications
- c. Improved management information
- d. Improved operational information
- e. Improved quality and accuracy of documents (reduced errors)
- f. Reduced cycle time (improved effectiveness)

1.2.5.2. Life-cycle costs: Life-cycle costs (LCCs) are all the anticipated costs to the Government associated with a project or program alternative throughout its life and includes the cost of research and development, investment in mission and support equipment (hardware and software), initial inventories, training, data, facilities, etc., and the operating, support, and, where applicable, demilitarization, detoxification, or long term waste storage. All relevant resources required to achieve the stated objective throughout the alternative's useful life are to be shown in the analysis. Costs of each alternative which are required to meet the objective should be exhaustive. Costs should be carefully analyzed to determine whether or not they are included under the scope of the objective. Closely associated costs which do not contribute to an objective may be excluded. The DoD position is that all costs of each alternative should be identified. In practice it has been found that failing to identify all costs can easily lead to decisions being made on what in reality is incomplete and partial information. If particular costs in an business case analysis are judged to be very small and difficult to measure due to lack of data, then a discussion of such costs should be included in narrative format so that decision makers and reviewers will be aware of them. The specific measure of life-cycle cost is the annual cost of the alternative discounted to its present value and summed over the entire economic life of that alternative; or, in other words, the present value of the total cost stream. Life-cycle costing provides logical and comprehensive information on programs and projects; its focus is on the total resource implications of program decisions, implicitly considering the timing of expenditures. Compute life-cycle costs for each alternative:

1.2.5.2.1. Pilot costs: Those costs of developing a prototype solution and implementing it at one or more sites for testing. These costs may include:

- a. Development, installation and modification of the system or process
- b. Training and lost productivity during learning
- c. Maintaining two separate systems during the pilot
- d. Program management to include oversight and measurement of the desired changes
- e. Reversion to the old process if the pilot is unsuccessful

1.2.5.2.2 Implementation costs: These costs may include some or all of the following:

- a. Hardware, software, installation and integration with legacy systems
 - b. Process development and modifications not discovered during the pilot
 - c. Project management to include evaluation of the new process
- Staffing
- d. Training, including lost productivity during learning
 - e. Internal marketing to foster acceptance

1.2.5.2.3. Operational, maintenance, and sustainment costs: These costs represent the ongoing costs to operate the system or process and may include some or all of the following:

- a. Operations and maintenance
- b. Staffing and consultants
- c. On-going staff training
- d. Trouble-shooting and modifications as required
- e. Customer service and other transactions
- f. System upgrades and replacements over the life cycle

1.2.6. Recommendation: Explain the alternative solution considered and why the submitted alternative is recommended over the competing alternatives. For each alternative, include: a) a brief description of the alternative; b) estimated costs; c) estimated benefits; d) alternative pros; e) alternative cons; f) relative merits when compared to the other alternatives; and g) rational for decision.

1.2.6.1. Funding: Identify the amount of funding required for each phase of the project (pilot, implement, and sustainment), identify the source for these funds, and current funding status. Be sure you know, and account for, any restrictions associated with these funding sources.

Explain briefly the initiative's funding strategy. Include, where appropriate:

- What are the different appropriations being requested?
- What is the rationale for requesting funds from these sources?
- What is the risk of availability of this/these funding source(s)?

1.2.6.2 Risk Assessment: It is important to identify and analyze risks to determine which risks present the greatest threat to the initiative's successful outcome and address and treat them as early on in the initiative as possible. Identify the risks, impacts, and potential mitigating strategies for the proposed plan of action. This should include an analysis on the impact to the business case if key assumptions do not hold (sensitivity analysis). Risks may include technology that does not become available as predicted, lack of funding or other resources, lack of a workforce with requisite skills, etc. For each risk, assess the likelihood of that risk occurring, the potential impact on the project and an approach to overcome or lessen the impact of the risk should it occur.

For each identified risk, address the following:

- Were all phases and aspects of the initiative taken into account during the risk identification process?
- Has the exposure of each identified risk been evaluated?

- Has a mitigation strategy been identified for each identified risk?
- Has a contingency strategy been defined for each identified risk?
- Has a trigger been established for each contingency strategy?
- Does the proposed initiative include tasks for active monitoring for risks?
- Is there a process for tracking and reporting on risks?

1.2.6.3. Change Management Plan: A Change Management Plan is developed to manage the organizational change that is associated with implementing a new initiative. A well drafted change management plan should discuss any cultural changes required, shared visions between stakeholders, what necessitates the change, expected stakeholder resistances, leadership buy-in, communication strategies, and possible infrastructure changes. The plan is based on effective marketing of the project and the building of a partnership between the project management team and the user community. The plan should contain the following major elements:

1.2.6.3.1. Stakeholder action plan: If the investment decision impacts stakeholders, address how the stakeholders will be informed, involved, convinced or otherwise engaged in the new process to gain their support.

For each stakeholder, address the following:

- What are their interests in the action plan?
- Why should they be involved?
- Are they represented in your group? (yes/no) If Yes, how? If no, why not?
- What might this stakeholder contribute to the implementation or planning process?
- How might they participate in the implementation and planning process?

1.2.6.3.2. Communications plan: Communication is a major component of any successful project. Without effective communication, key stakeholders in a project may miss out on vital information and may not understand why change is needed. The best way to approach communication is to develop a clearly planned approach or strategy. Address the means, methods and messages, along with the schedule for delivery, to explain the initiative to the stakeholders, and other parties impacted by the investment decision (see example below).

Target Audience/ Stakeholder Group	Objective	Communication Tools	Who to Action?	By When?	Costs?
Identify the Target Audience by considering the following: <ul style="list-style-type: none"> Who will benefit from the project? Who are the Key Stakeholders? Who are the stakeholder groups and the target audience within them? 	What do you intend to communicate to the stakeholder(s) groups? What are the key points stakeholder(s) groups need to understand and act upon?	What communication methods/tools are most appropriate for the stakeholder(s) groups? e.g. electronic, verbal written.	Who will be responsible for implementing each action?	When must the action be implemented?	What are the costs associated with each action?

Example – Communication Plan

1.2.6.3.3. Training plan. The Training Plan describes the strategies, activities and tasks necessary to provide the individuals or organizations that are impacted with the skills necessary to perform the new initiative successfully. The training plan helps to ensure that project outcomes are successfully achieved. The key to effective training, and a successful implementation of the project, is to start the planning process early. If training needs are not considered until close to the end of the project, there will not be enough time to effectively prepare staff to use the new product

The training plan should include the following:

- A description of the scope of the training.
- A description of the Training objectives.
- Background information such as a description of the product and a high-level overview of the curriculum.
- The Training requirements such as the required skills, the audience(s), individuals or positions needing specific training, and the required time frame.
- The Training roles and responsibilities.
- A method for evaluating the training.

- The Training strategy.
- Sources for Training.
- Costs for Training (Also should be included in rollup cost of Section 1.2.5.2).
- The Dependencies/Constraints/Limitations affecting the training.
- Training resources.
- A description of the training environment.
- A description of the training materials.
- A course outline.
- A log for keeping track of who has received training.
- A process for updating the training materials.

1.2.6.3.4. Implementation or Action Plan: With a well thought out high level implementation or action plan, the project manager will be able to communicate and coordinate the tasks necessary for a successful transition throughout pilot, implementation and sustainment phases. Identify the type of approach to implementing the preferred alternative, for example one large project, a number of smaller projects or a combination of both. The breakdown of the projects within this strategy can also be included where the 'manageable chunks' or phases for each project have been identified. It is also good idea to hold a walkthrough of the implementation or action plan with all stakeholders to verify that all necessary tasks are accounted for, are in their proper sequence, and assigned to appropriate organizations or individuals.

When developing the implementation or action plan, consider the following:

- Have dates been applied to all tasks?
- Are the sequencing and timing of the tasks are correct?
- Is there an assigned person or organization that are responsible for completing each task?
- Have dependencies between tasks been identified and communicated to the resources affected by the dependency?
- Has the plan been reviewed with all impacted stakeholders and resources assigned to the implementation or action tasks?
- Has the initiative schedule been reviewed and updated based on the tasks and timeframes identified in the implementation plan?
- Have other ongoing projects or processes been reviewed for possible changes based on the contents of this implementation plan?

1.2.6.3.5. Key Performance Measures and Outcomes: A key aspect of any initiative is the ability to track results of the initiative over time. Determining performance measures and outcomes (also known as metrics) at the beginning of an initiative helps assure that the initiative stays true to the initial purpose and priorities. Defining the desired outcomes or acceptance criteria at the beginning of the initiative also clarifies the initiative's scope. Using performance measures establishes whether the initiative did indeed succeed, and provides a starting point for developing future

lessons learned. If the business process will change dramatically due to the initiative, then it's especially important to choose a basis of comparison that won't change. Some common measures to consider are program cost savings (requires baseline), business process time savings (requires baseline) amount of use that project outputs get (number of website hits, etc), change in number of customer complaints (requires baseline), and nature of customer feedback (may require a survey).

Each proposed metric should address the following:

- Does the measure directly target an initiative's objective?
- Is there a measure for each objective?
- Does the measure use data that's readily available?
- Has baseline data been captured (necessary if changes are to be measured)?
- Is the basis for comparison consistent? (Is it comparing apples to apples?)
- Have timeframes been considered?
- How long will it take for changes to come about or to be able to capture meaningful data?

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 10-601 – *Mission Needs and Operational Requirements Guidance and Procedures*
AFI 32-1089 – *Air Force Military Construction and Family Housing Economic Analysis Guide*
AFI 33-103 – *Requirements Development and Processing*
AFI 63-107 – *Integrated Product Support Planning and Assessment*
AFI 65-501 – *Economic Analysis*
AFI 65-502 – *Inflation*
AFMAN 65-506 – *Economic Analysis*
Clinger-Cohen Act of 1996 (40 U.S.C. 1401(3)) – *Information Technology Management Reform Act*
DOD Directive 5000.1 – *The Defense Acquisition Team*
DOD Instruction 5000.2 – *Operation of the Defense Acquisition System*
DOD Directive 5000.4M – *Cost Analysis Guidance and Procedures*
DoD Instruction 7041.3 – *Economic Analysis for Decision Making*
Office of Aerospace Studies AoA Handbook – *A Guide for Performing an Analysis of Alternatives*
OMB Circular A-11 Section 300 – *Planning, Budgeting, Acquisition, and Management of Capital Assets*
OMB Circular A-76 – *Performance of Commercial Activities*
OMB Circular A-94 – *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*
The President's Management Agenda
USD (AT&L) Policy Memo: *Performance Based Logistics Business Case Analysis*

Abbreviations and Acronyms

ACAT – Acquisition Category
AF/CIO/P - Air Force Chief Information Officer, Plans and Policy Directorate
AIS – Automated Information System
AOA – Analysis of Alternatives
BCA – Business Case Analysis
CBA – Cost Benefit Analysis
CBR – Cost Benefit Ratio

CMP – Change Management Plan
DoD – Department of Defense
EA – Economic Analysis
EIA – Economic Impact Analysis
FM – Financial Management
FY – Fiscal Year
HAF – Headquarters Air Force
IRR – Internal Rate of Return
LCC – Life Cycle Costs
LCCA – Life Cycle Costs Analysis
MAJCOM – Major Command
MFR – Memorandum For Record
OCR – Office of Collateral Responsibility
OMB – Office of Management and Budget
OPR – Office of Primary Responsibility
OSD – Office of Secretary of Defense
PBL – Performance Based Logistics
RTOC – Reduction in Total Ownership Costs
SAF/FMC – Secretary of the Air Force Financial Management Cost
SAF/FMCE – Secretary of the Air Force Financial Management Cost and Economics
SPO – System Program Office

Terms

Alternative – An approach or program that is another possible way of fulfilling an objective, mission, or requirement. The status quo, or an upgrade to the status quo, is usually an alternative to a proposed course of action.

Benefits – Objective measures of an alternative’s value to the United States. When a dollar value cannot be placed on comparable program or project benefits, other objective measures may be available and useful for comparing alternatives. Monetary benefits are receipts of the United States due, e.g., to sale of physical assets, or reductions in costs of other programs due to the action of the program under analysis.

Benefits Analysis--Analysis to identify, measure and evaluate the benefits for each proposed alternative.

Business Case Analysis--A business decision document that identifies alternatives and presents convincing economic and technical arguments for implementing alternatives to achieve stated organizational objective/imperative(s).

Commercial or Industrial Activities--Activities that provide products or services obtainable (or obtained) from a commercial source. Commercial activities are operated by Air Force military or civilian personnel, or by contractor personnel.

Constant Dollar Value or Costs or Benefits--Value, cost, or benefits measured based on constant purchasing power of the dollar. That is, constant dollar analyses are done from the perspective of a constant general price level, though relative prices may vary.

Constraints--Limitations of any kind to be considered in planning, programming, scheduling, implementing or evaluating programs.

Cost-Benefit Analysis or Cost-Effectiveness Analysis. See Economic Analysis.

Cost-Effective Alternative--That alternative, which, when compared to all other alternatives: a) Maximizes benefits when costs for each alternative are equal, or b) Minimizes costs when benefits are equal for each alternative.

Current Dollar Value or Costs or Benefits--Value, cost, or benefit measures which include estimates of all expected future price changes. In current dollar analyses prices, costs, and other dollar-denominated measures are increased based both on anticipated year-to-year changes in the general price level and on anticipated changes in relative prices.

Discount Rate--The parameter used to translate future costs or benefits into present worth (see "Present Value" below). It is a measure of the time value of money.

Discounting--The process of using the discount rate to determine the present value of costs and benefits. (Elements of cost and benefit streams are multiplied by their corresponding discount factors to yield discounted costs and benefits.)

Economic Analysis--A systematic approach to the problem of choosing how to use scarce resources. It reveals the present value of the monetary costs and benefits associated with all alternatives under consideration, and provides as accurate and complete a picture as possible of nonmonetary costs and benefits.

Economic Life--The period of time over which the benefits to be gained from a project may reasonably be expected to accrue to the DOD. It is the shortest of physical, technological or mission life.

Effectiveness--Ability of a project to meet objectives.

Efficiency--The amount of output per unit of input. Alternatively, it is the quality whereby one alternative uses less input per unit of output than other alternatives.

Expected Annual Cost--The expected annual dollar value of resources, goods, and services required to establish and carry out a program or project.

Feasibility Study--A study of the applicability or practicability of a proposed action or plan.

Historical Cost--The cost of any item, based on actual dollar (or equivalent) outlay, ascertained after the fact.

Imputed Value--The value assigned to actions or transactions that are not explicitly priced (e.g., transfers of assets between government programs). Estimates of the dollar value of imputed costs can be obtained from estimating the undepreciated (i.e., remaining) value of assets, if those assets have an alternate use.

Induced Costs--Those costs that execution of a given project or program alternative impose on another Air force or government program. For example, if a proposal to move an activity into facilities currently occupied by a second activity causes expenditures by the second activity for real property acquisition or improvement, then those expenditures are induced costs that should be taken into account in the decision to move the first activity.

Investment Costs--Those program costs required beyond the development phase to introduce into operational use a new capability; to procure initial, additional, or replacement equipment for operational forces; or to provide for major modifications of an existing capability. They exclude research, development, test and evaluation, military personnel, and operation and maintenance appropriation costs.

Life-Cycle Cost--The total cost to the government for a system over its full life, including the cost of development, procurement, operation, support, and disposal.

Mission Life--The time period of program use or operation.

Objective Statement--A statement of what is ultimately to be accomplished. In economic analysis objectives are stated such that there is no bias toward a particular alternative.

Opportunity Cost--The cost of a resource, measured in terms of its value in the highest alternate use.

Output--Goods and services produced or mission accomplished.

Physical Life--The estimated time that a machine, piece of equipment, or building can be used in the function for which it was procured or constructed. An initial estimate of physical life may require adjustment if significant alterations or conversions are subsequently proposed or effected.

The President's Management Agenda--An aggressive strategy to achieve the Administration's policy and program goals through reform of federal management and improved program performance

Present Value--The net value of a flow of funds, expressed as a single sum of dollars; effectively, the sum of money equivalent to all current and future flows. Calculated by multiplying the net cost figure for each year by the corresponding discount factor, and summing the results.

Program Evaluation--Analysis of ongoing actions to determine how well the stated objectives are being accomplished. Program evaluation studies entail a comparison of actual with intended performance.

Real Property--Land, buildings, structures, utility systems, improvements, and appurtenances thereto. Includes equipment attached to and made part of buildings and structures (such as heating systems) but not movable equipment (such as plant equipment).

Recurring Costs--Expenses for personnel, material consumed in use, overhead support services, and other items incurred on a repeating basis.

Residual Value--The expected value of an asset at any point in time before the end of its economic life.

Risk--The likelihood that some assumption or estimate is wrong. Sometimes used synonymously with "uncertainty," though uncertainty can be described by a probability distribution.

Sensitivity Analysis--Examination of the effects obtained by changing the direction and magnitude of assumptions embodied in an analysis or key variables or factors in an analysis.

Sunk Cost--The sum of past expenditures or irrevocably committed funds related to a project. Such costs are generally not relevant to decision making as they reflect previous rather than present choices.

Technological Life--The estimated number of years before technology will make the existing or proposed equipment or facilities obsolete.

Terminal Value--The expected value of assets at the end of their economic life.

Uniform Annual Cost--The average cost per year for a given alternative. It is calculated by dividing the total net present cost (for the full-time life cycle) by the sum of the discount factors of the years in which benefits accrue (economic life).

SAMPLE BUSINESS CASE ANALYSIS

Business Case Analysis for Automation of Travel Voucher Processing

Executive Summary. This automation initiative proposes the development of a paperless system for the transfer and storage of financial documentation related to travel vouchers. The current “as is” process is paper-intensive. Customers filing travel vouchers are required to provide extra copies of the settlement voucher, receipts and applicable travel orders. The Financial Services Office maintains one copy locally for a designated period of time and original documents are boxed up and shipped to the Federal Records Center (FRC) for storage. Military Pay documents are routed through Customer Support for processing where copies are retained for six months. Quarterly, the original documents are boxed and sent to the FRC. After applicable disposition time, the documents at the base and the FRC are shredded. These are manual processes that use large amounts of valuable resources (time, material, postage, warehouse space, etc.) to maintain and destroy paper documents.

The anticipated “to be” process will be a paperless system for transferring and storing the related documents. This will improve service to our customers and decrease costs associated with document packing, shipping, and storage. This significant reduction of paper copies of vouchers, receipts, and orders that customers are required to submit will reduce the cost of storing documents and improve the research capability by allowing easy access to these electronic records.

The users of the process are the same as the current process: the base finance office, DFAS, travelers, commanders and auditors. In the transformed stage, the process is enhanced. Copies that must be kept as documentation of payments or military pay-affecting transactions are more easily accessible and don’t require significant physical storage space. If a customer requires a copy or research must be conducted, base level or DFAS can quickly pull a copy using any computer. This process offers better decision support to the stakeholders since research time is significantly decreased, thus aiding in the audit process. In addition, there is no fee for the service.

This initiative supports the FM Strategic Plan’s goals of increasing cost efficiency and improving war fighter service. By reducing the time required to submit paperwork, customer service is improved. Additionally this initiative leverages private sector best practices, one of the administration’s top priorities.

This initiative will be monitored using two performance measures: contract cost and number of electronic documents transmitted.

Assumptions. Key assumptions for this business case analysis include:

- The users of the process are the same as the current process: the base finance office, DFAS, travelers, commanders and auditors.
- Previous customer service surveys reveal persistent customer frustration with the time-consuming process of making copies of TDY vouchers.
- Migration to a paperless work environment is a top goal of the Administration.
- Analogous efforts throughout the Air Force to migrate to a paperless work environment will facilitate customer transition to this particular process since they are accepting it within other facets of their work environment
- The Defense Finance and Accounting Service will accept electronic copies in lieu of paper copies
- The Federal Records Center will maintain electronic files vice hard copy documents
- Detailed analytical assumptions are separately described in the Cost-Benefit Analysis Description (omitted here for brevity of the example)

As-Is Description. The customer provides three copies of orders and travel voucher. After payment is calculated and released, customer support technician prints three copies of payment voucher, then sorts and combines with customer copies of orders/travel voucher. Receipts stay with original copy and go to disbursing, one copy goes to military pay to review for pay-effecting info and one copy is used for accounting processing then filed in customer support. Note that electronic means are in place at most bases to distribute the customer copy via email. Once per quarter, technicians box up the original vouchers along with the receipts to send to the Federal Records Center (FRC) for storage. They prepare an SF 135, Transmittal, and send it to DFAS via mail or fax to obtain an accession number. DFAS reviews it and sends it to the FRC via courier. FRC reviews it, assigns an accession number and returns it to DFAS via courier. DFAS logs it in and forwards the form back to the base. The base puts a copy of the SF135 in the first box and takes the boxes to the postal center for mailing. Customer Support maintains the hardcopy of all vouchers for current year plus one year then shreds them. The military pay copy is only kept as back up for transactions, all others are shredded. The Air Force is charged for storage by the number of shipments and by cubic foot stored.

(Note: For brevity of example, flow charts are not included here but would be helpful in illustrating the “As-Is Case”)

To-Be Description. The proposed solution is the only feasible alternative considered for the short-term. In addition to the status quo, this BCA considered two alternative methods of storing electronic records. Records could be stored locally using individual servers at each installation, or centrally stored at one electronic data storage facility. While individual servers would provide for local control of the records and improve local access (less records to sort through and no dependence on internet connectivity) it was determined to be prohibitively expensive to procure and maintain individual data servers. *(Note: Additional analysis on these alternatives excluded for brevity of example.)*

Note also that long-term plans include complete automation of the travel order and vouchering system and this will eventually supplant the process described here.

Best Practices: Currently, at least two Air Force bases electronically scan and file documents. Savings realized in materials alone at these locations covered investment cost within the first year. The new process also saved time by enhancing local research, leading to better customer service. In the private sector, the banking industry is migrating to electronic warehousing. The days of paper copies are obsolete due to cost, ineffectiveness and inefficiencies, thus supporting the business case.

Proposed Solution: Customer provides just one copy (the original) of orders, receipts, and travel voucher (no need to make copies). After payment is calculated and released, a Customer Support technician prints one copy of the payment voucher, combines with customer copies of orders, travel voucher and receipts and scans all directly to the central site. The hardcopy original is used by the accounting technician, then provided to Military Pay to review for pay-affecting data, then shredded.

Cost-Benefit Analysis.

In developing the cost estimate, we flowcharted each step in the current process and projected to-be process and estimated the time it takes to complete each step, whether customer, FSO or DFAS. Data on the number of bases involved and the total number of boxes staged came from the DFAS liaison with the Federal Records Center (FRC). We then surveyed four bases of various sizes (Eglin, Peterson, Los Angeles and Keflavik) to come up with an average number of documents/box, thus developing the estimate for the total number of vouchers involved in the process. Staging/retrieval costs are based off actual billable rates as obtained from the FRC. This data was the basis for our cost analysis. Our recommended alternative of electronic scanning at a base to a central server at DFAS is projected to save customers 192,000 man-hours by not requiring them to make copies. Since the FSO will scan several documents at once at a readily accessible scanner, the time spent per voucher is significantly reduced and does not off-set the customer manpower savings. This is primarily due to the decreased time it'll take to print & sort the vouchers for hardcopy filing/distribution. For implementation costs, we contacted the vendor Laserfiche who has performed similar efforts. The cost savings include the following assumptions:

- Total number of vouchers used in the calculations is an accurate estimate and represents an average per year for all years
- The number of bases used (198) based off number of bases who stage milpay & travel documents with the FRC provides a good estimate for the scope

- 1200 vouchers is a representative average of the number of staged documents per month
- Time estimated by the 4 person team (off experience or inquiry) for each task involved in the document flow is accurate as an Air Force average
- All bases require customers to make copies of vouchers prior to submission and five minutes is an accurate estimate of the time it takes to do so (including walking to a copier).
- Labor rates used (E5 for base-level and billing rate for DFAS) is a good representative average
- The product costs of the supplier used for the implementation estimates is comparable to all in the market
- The number of servers, scanners, software copies and user licenses used in the cost estimate is adequate. Assumed:
 - 2 large capacity servers
 - 1 scanner per base
 - Only 1 copy of the workflow software and web access software
 - 1 copy per base for email and snapshot software
 - 149 full-user and 149 read-only user licenses (estimated 3 full users & 3 read-only needed per base, but only 1/4 max would be accessing at any one time) Note – with time zones & such, we feel this is a high estimate that allows for DFAS use as well without adding extra to the calculation.

The types of servers & scanners used in the estimate provide all the functionality needed

Cost/Benefit Analysis

Cost/Benefit	STATUS QUO					PROPOSED ALTERNATIVE				
	Labor Time (Minutes)		Labor Cost	item cost	Material Cost	Labor Time (Minutes)		Labor Cost	item cost	Material Cost
OPERATING COSTS										
Customer										
Copies from customer	5.0	per voucher	\$ 7,957,224	\$ 0.10	\$ 285,120	3.0	per voucher	\$ 4,774,334	\$ 0.06	\$ 171,072
MILITARY PAY										
Review/Scan copy of document	1.0		\$ 1,591,445			2.0		\$ 3,182,890		
File copy of document in Cust Spt	1.0	per voucher	\$ 1,591,445		\$ -	0.0	per voucher	\$ -		\$ -
Box up originals	10.0	per box	\$ 31,829	\$ 2.00	\$ 11,405	0.0	per box	\$ -	\$ 2.00	\$ -
Send boxes to Fed Record Center	60.0	per base/qtr	\$ 190,973	\$ 5.00	\$ 28,512	0.0	per base/qtr	\$ -	\$ 5.00	\$ -
Shred originals	0.25	per document	\$ 397,861		\$ -	0.25	per document	\$ 397,861		\$ -
DFAS/FRC										
DFAS document receipt/processing	5.0	per box	\$ 30,470			0.0	per box	\$ -		
DFAS handling requests for copies	10.0	per request	\$ 253,915	\$ 0.10	\$ 2,376	0.0	per request	\$ -	\$ -	\$ -
storage of past years docs	n/a	box/month		\$ 10.00	\$ 57,024	0.0	box/month		\$ -	\$ -
ACQUISITION										
Equipment										
Servers						each		\$ 20,000		\$ 40,000
scanners						per base		\$ 5,000.00		\$ 990,000
Software Licenses										
full user						per user		\$ 487.00		\$ 72,320
read only						per user		\$ 194.00		\$ 28,809
Installation										
Installation - central location (contractor)						1 week	\$ 2,565			
installation - baselevel						60.0 /computer	\$ 38,087			
Training at base						240.0 /computer	\$ 152,349			
TDY for Implementation Team						per trip		\$ 1,000.00		\$ 594,000
SUSTAINMENT										
Hardware						25% cost		\$ 1,030,000		\$ 257,500
Software Licenses										
full user						per user		\$ 487.00		\$ 72,320
read only						per user		\$ 194.00		\$ 28,809
Systems Administrator						1 Contractor	\$ 123,110			
Annual Cost:			<u>Labor</u>	<u>Material</u>	<u>Total</u>		<u>Labor</u>	<u>Material</u>		<u>Total</u>
Customer:			7,957,224		\$ 7,957,224		4,774,334			\$ 4,774,334
Base-level FSO:			3,803,553	39,917	\$ 3,843,470		3,580,751	-		\$ 3,580,751
DFAS/AF:			284,385	59,400	\$ 343,785		123,110	358,629		\$ 481,739
Total annual cost:					\$ 12,144,479					\$ 8,836,824
One-time implementation cost							193,001	1,131,129		\$ 1,918,130

Recommendation.

Funding. Funding requirements are detailed in the table below

Cost/Benefit Summary (FY03 \$K)								
		FY04	FY05	FY06	FY07	FY08	FY09	FY10
Costs								
<i>Pilot (N/A)</i>		\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Implementation</i>		\$1,918	\$0	\$0	\$0	\$0	\$0	\$0
<i>Customer - Sustainment</i>			\$4,774	\$4,774	\$4,774	\$4,774	\$4,774	\$4,774
<i>Base - Sustainment</i>			\$3,581	\$3,581	\$3,581	\$3,581	\$3,581	\$3,581
<i>HQ/DFAS - Sustainment</i>			\$482	\$482	\$482	\$482	\$482	\$482
TOTAL		\$1,918	\$8,837	\$8,837	\$8,837	\$8,837	\$8,837	\$8,837
Savings								
<i>Customer</i>		\$0	\$7,957	\$7,957	\$7,957	\$7,957	\$7,957	\$7,957
<i>Base</i>			\$3,843	\$3,843	\$3,843	\$3,843	\$3,843	\$3,843
<i>HQ/DFAS</i>		\$0	\$344	\$344	\$344	\$344	\$344	\$344
TOTAL		\$0	\$12,144	\$12,144	\$12,144	\$12,144	\$12,144	\$12,144
Net Benefits								
		(\$1,918)	\$3,308	\$3,308	\$3,308	\$3,308	\$3,308	\$3,308
<i>Net Present Value</i>		\$15,978						
<i>Return on Investment</i>		133%						
<i>Internal Rate of Return</i>		172%						

Cost analysis reveals that each year this process costs over \$12.1M/year Air Force wide. Electronic filing of documents would benefit the customer, the FSO and the DFAS. Total savings are estimated at \$3.3M/year with the greatest annual cost savings, estimated at \$3.2M for the customer (largely the result of savings associated with not having to make copies of documents) and \$260K/year for the base FSOs. At least two Air Force bases are electronically scanning and filing documents and the time saved through enhanced research capabilities, led to improved service while the savings in materials alone covered investment cost within the first year.

The amount of funding required is \$1.9M. Based on the current project plan the investment will be needed late November or early December in FY04. The funding is directly related to the cost of hardware, software, and licenses for the vendor selected via the request for proposal process as well as the labor required to install and implement the new technology. The recommended source of funding could come from a variety of resources, most notably via internal funding distributed to the individual MAJCOMs. Due to the large nature of the request, the team recommends that Air Force Paperwork Command be the primary provider of the needed funding

Risk Assessment. The risks associated with this initiative are minimal. With dual records being kept during the implementation phase, if the electronic systems do not perform as planned, the current system of record keeping can be retained. Since this initiative uses Commercial Off the Shelf software (COTS) with proven technology, the technical risk or schedule delays are minimal. The key assumptions, their risk to the program, and actions that can be taken to mitigate these adverse events are outlined in the following table:

<i>Risk Management Plan – Document Warehousing</i>				
<i>Risk</i>	<i>Business Impact (H, M, L)</i>	<i>Probability of Occurrence (H, M, L)</i>	<i>Priority</i>	<i>Action</i>
DFAS won't allow electronic copies	H	M	1	Continue to transfer hard copies to DFAS but implement electronic filing at base level.
Must obtain a Certificate of Net Worthiness	H	M	3	
Team Champion won't buy-in (Assistance CIO)	H	L	6	Convince Team Champion through the cost benefit analysis to achieve buy-in.
Federal Records Center (FRC) buy-in to maintain electronic versus hard copy documents	H	L	4	Provide convincing argument or explore other storage site alternatives (store by command or field site).
Information Management (IM) won't approve	M	L	5	Pre-emptive action is to explore / change requirements.
Lack of Funding	H	M	2	Explore all options for funding – rely on cost benefit analysis to support the change.

When reviewing the key assumptions used in the Cost/Benefit Analysis it is clear that this initiative will result in reduced costs even if many of the assumptions fail to materialize. In order for the initiative to produce a negative net present value, the time required to scan each individual document would have to almost triple, or the time savings from not requiring additional copies from each individual customer would have to virtually be eliminated. A summary of the key assumptions and their break-even values (if they exist) are summarized in the following table.

<i>Assumption / Sensitivity Analysis</i>			
<i>Factor</i>	<i>Current</i>	<i>Proposed Alternative</i>	
		<i>Base Value</i>	<i>Break Even</i>
Discount Rate	2.4%	2.4%	
Military Labor Rate (\$/hr)	\$33.49	\$33.49	\$4.38
Civilian Labor Rate (\$/hr)	\$64.12	\$64.12	
Base Copy Time (minutes)	5.0	5.0	
Scan Time (minutes)	1.0	1.0	2.9
Reduction in copying time (minutes)	2.0	2.0	0.1
# Bases	198	198	
# Docs/Base/month	1,200	1,200	
# Docs per box	500	500	
# Docs from DFAS/base/month	10	10	
Scanner Cost	\$5,000	\$5,000	\$39,700
Storage Cost/box	\$2.00	\$2.00	

Change Management Plan. A 4-person team formed by HQ Paperwork Command, with participation from DFAS and SAF/FM, will lead implementation of this plan. This project will be implemented in 4 phases.

Phase 1: Concept Approval. (Oct 04-Dec 04) Prior to the actual procurement of the electronic warehousing software, DFAS and the Federal Records Center's must approve transition from paper to electronic records. To facilitate approval, face-to-face sessions will be organized to ensure all parties understand the desired to-be state.

Phase 2: Vendor Selection. (Dec 04-Feb 05) Existing IT contracts will source the required hardware and software. DFAS will house and maintain this equipment in place of their current paper storage.

Phase 3: Pilot Testing. (Mar 05- Jun 05) Prior to full fielding, the electronic scanning and storage of records will be field tested at one base in each Major Command. These bases will be given the opportunity to provide feedback on any additional training needed or system modifications that will improve the functionality of the system prior to its adoption AF wide.

Phase 4: Full Fielding. (Jul 05-Sep 05) Once validated by the pilot bases, the electronic storage of financial records will begin at all AF locations. During this implementation period, hard copies will be maintained with the AF going completely paperless 1 Oct 05.

The transition from paper to electronic records must be coordinated with the implementation of other accounting and finance changes as part of the overall FM Transformation. These include changes in the way travel and military pay records are updated as well as new automated systems such as the Defense Travel System (DTS) and the Defense Integrated Military Human Resource System (DIMHRS). While this initiative will have limited direct interaction with these other initiatives, the reduction in storage costs and the number of documents being placed in storage may change over time. None of these changes are expected to affect the overall BCA for this initiative.

Stakeholder Plan* – Document Warehousing						
Key Stakeholder	Function / Characteristic	Impact of Change (H, M, L)	Reaction to Change (-, 0, +)	Strength (H, M, L)	Key Issues / Levers	Actions to be Taken
CIO	Responsible for procuring / developing systems	H	0	H	Easier / efficient in long term, more difficult in upfront training and investment	1. Business Case proves that the benefits far outweigh the costs.
DFAS	Transfer hardcopy files; request files from FRC and assist in establishing the file plan	H	-	H	Job impact and change from manual to electronic workflow	1. Open and honest communication vehicle to stress the magnitude of the change on their jobs / positions. 2. Stress the importance of moving from an administrative role to an analytical role.
FSO	Maintains hardcopy files; prepares / sends hardcopy files to DFAS	H	0	L	Initial concern of an increase in workload	1. Identify the ease and research of filing – how it makes their job easier now versus harder. 2. Use communication vehicles to address the changes.
Information Management (IM)	Responsible for policy and approval of the file plan	H	-	H	Security / integrity of documents stored electronically	1. Involve them in the process change upfront to ensure a smoother transition. 2. Seek their guidance very early in the process

*(Abbreviated for brevity of example)

Communications Plan* – Document Warehousing						
Target Audience	Primary Message	Vehicle(s)	Frequency	Timing	Responsibility	Feedback Mechanism
CIO	Large dollar savings, increased accessibility to records, promotes paper-free goal	1. Business Case	One-time	FY04, 4Q FY05, 1Q	ALO Sub Team / Team Lead	FMTSSG
DFAS	Automation will reduce workload, save contract warehouse costs, increased accessibility to records	1. Business Case 2. Discussions between SAF/FM, DFAS & FRC 3. Members of implantation team	Monthly	FY04, 4Q FY05, 1Q	Team Champion	Discussions
FRC	Switching from hard-copy to electronic form, either contract to be phased out/reduced or FRC will manage electronic file	1. Discussions between SAF/FM, DFAS & FRC 2. Contract Modification	One-time / As needed until modified	FY04, 4Q FY05, 1Q	DFAS Head	Discussions / Contract

*(Abbreviated for brevity of example)

<i>Training Plan* – Document Warehousing</i>						
<i>Target Audience</i>	<i>Course</i>	<i>Training Goal</i>	<i>Learning Objective</i>	<i>Deliverable</i>	<i>Input/ Dependencies</i>	<i>Output/ Destination</i>
System Administrators	Administer Training for Document Warehousing	<ol style="list-style-type: none"> 1. Administer must learn how to operate at their respective bases – act as base liaison. 2. Administer must learn how to conduct training for everyday users at the base level. 	<ol style="list-style-type: none"> 1. How to use hardware / software. 2. How to properly file (upload) documents. 3. How to retrieve documents. 	Reference guide and user manual	Contractor Support to provide training	Training Manual

*(Abbreviated for brevity of example)

Key Performance Measures and Outcomes – Document Warehousing							
<i>Performance Measure</i>	<i>Operational Definition</i>	<i>Data Source and Location</i>	<i>Sample Size</i>	<i>Who will collect the data?</i>	<i>When will data be collected?</i>	<i>How will data be collected?</i>	<i>Other data that should be collected at the same time?</i>
Contract Cost	Cost comparison of current FRC contract to future cost under electronic warehousing	FRC contract cost from (DFAS?) - Resource Manager	Contract cost per year until full implementation (7 years comparison)	Resource Manager responsible for FRC contract payment	Annually	Contract payment cost line item	None
Number of electronic documents transmitted	Track usage of new system via a known reduction in pay and travel documents sent electronically	FSO	Quarterly	FSO	Quarterly	Electronic data from the system	None

Summary. Although the majority of the cost savings associated with this initiative are cost avoidances that cannot be explicitly captured in a reduced budgetary requirement, with minimal investment, the electronic storage of financial documents can improve the efficiency of Air Force processes and adopt the commercially recognized best practice. This initiative is both environmentally sound (reduced paper copies) and results in improved performance of the existing process by allowing records to be queried electronically rather than using antiquated manual searches through paper record.